

# Denali National Park and Preserve Visitor Soundscape Study – Phase 1

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# Summer 2011: Phase I

- How important were aspects of the acoustic environment for visitors during their trip to DENA?
- How did visitors expectations pertaining to the acoustic environment compare with their experiences?
- What sounds were most frequently heard by visitors?
- How did visitors feel about the sounds they heard?
  - Acceptability of sounds heard
  - Personal interpretation of sounds



# Methods: Summer 2011

## Trail intercept visitor listening survey

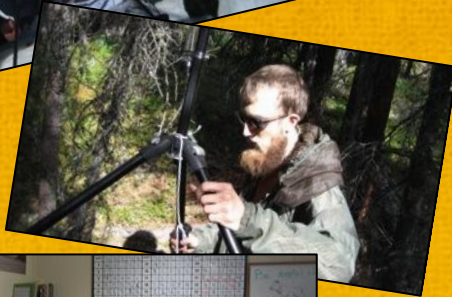
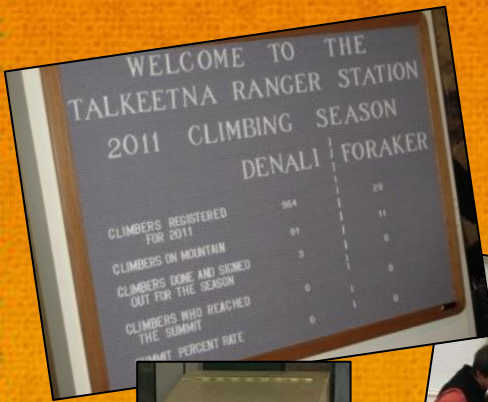
- Triple Lakes Trail
- McKinley Bar Trail

## “Diary” listening survey

- Backpackers
- Mountaineers

## Census Survey

- Backcountry Information Center
- Talkeetna Ranger Station





# Study Questions: Importance and Expectation

- How important were aspects of the acoustic environment for visitors during their trip to DENA?
- How did visitors expectations pertaining to the acoustic environment compare with their experiences?



# Importance of Experiencing Solitude

Sites	Not at all Important	Slightly Important	Moderately Important	Very Important	Extremely Important	Mean
T. Lakes	2%	8%	23%	33%	33%	3.9
M. Bar	6%	11%	22%	38%	22%	4.1
BIC	1%	5%	19%	38%	37%	4.1
TRS	9%	17%	30%	26%	18%	3.3



# Importance of Experiencing Sounds of Nature

Sites	Not at all Important	Slightly Important	Moderately Important	Very Important	Extremely Important	Mean
T. Lakes	0%	0%	16%	36%	48%	4.3
M. Bar	2%	5%	22%	43%	28%	3.9
BIC	3%	7%	25%	35%	32%	3.9
TRS	10%	19%	23%	30%	18%	3.3





# Importance of Experiencing Peace and Quiet

Sites	Not at all Important	Slightly Important	Moderately Important	Very Important	Extremely Important	Mean
T. Lakes	0%	2%	14%	37%	47%	4.3
M. Bar	2%	5%	15%	35%	43%	4.1
BIC	0%	3%	14%	33%	49%	4.3
TRS	6%	18%	22%	30%	24%	3.5



# Importance of Flying in an Airplane

Sites	Not at all Important	Slightly Important	Moderately Important	Very Important	Extremely Important	Mean
T. Lakes	73%	9%	12%	5%	1%	1.5
M. Bar	88%	2%	6%	4%	0%	1.3
BIC	83%	8%	5%	3%	1%	1.3
TRS	47%	22%	12%	10%	10%	2.2





# Expectations Compared with Experience

	No Expectation	A lot less than expected	Less than expected	About as expected	More than expected	A lot more than expected	Mean
Amount of time during trip aircraft were heard							
• T. Lakes	26%	7%	13%	23%	28%	4%	3.3
• M. Bar	31%	7%	11%	32%	15%	4%	3.1
Opportunities to experience sounds of nature							
• T. Lakes	1%	2%	4%	65%	24%	3%	4.2
• M. Bar	9%	0%	10%	66%	10%	4%	3.8
Amount of time vehicles were heard							
• T. Lakes	12%	9%	12%	41%	23%	3%	3.6
• M. Bar	10%	4%	27%	40%	15%	4%	3.6

# Pre-Trip Expectations

	No Expectation	None of the Time	Less than half of the Time	About half of the Time	More than half of the Time	All the Time	Mean
Amount of time during your trip you expect to hear aircraft							
• BIC	17%	39%	39%	4%	1%	0%	2.4
• TRS	19%	11%	53%	11%	7%	0%	2.8
Amount of time during trip you expect to experience the sounds of nature							
• BIC	2%	0%	2%	7%	33%	56%	5.4
• TRS	8%	2%	16%	19%	31%	24%	4.4

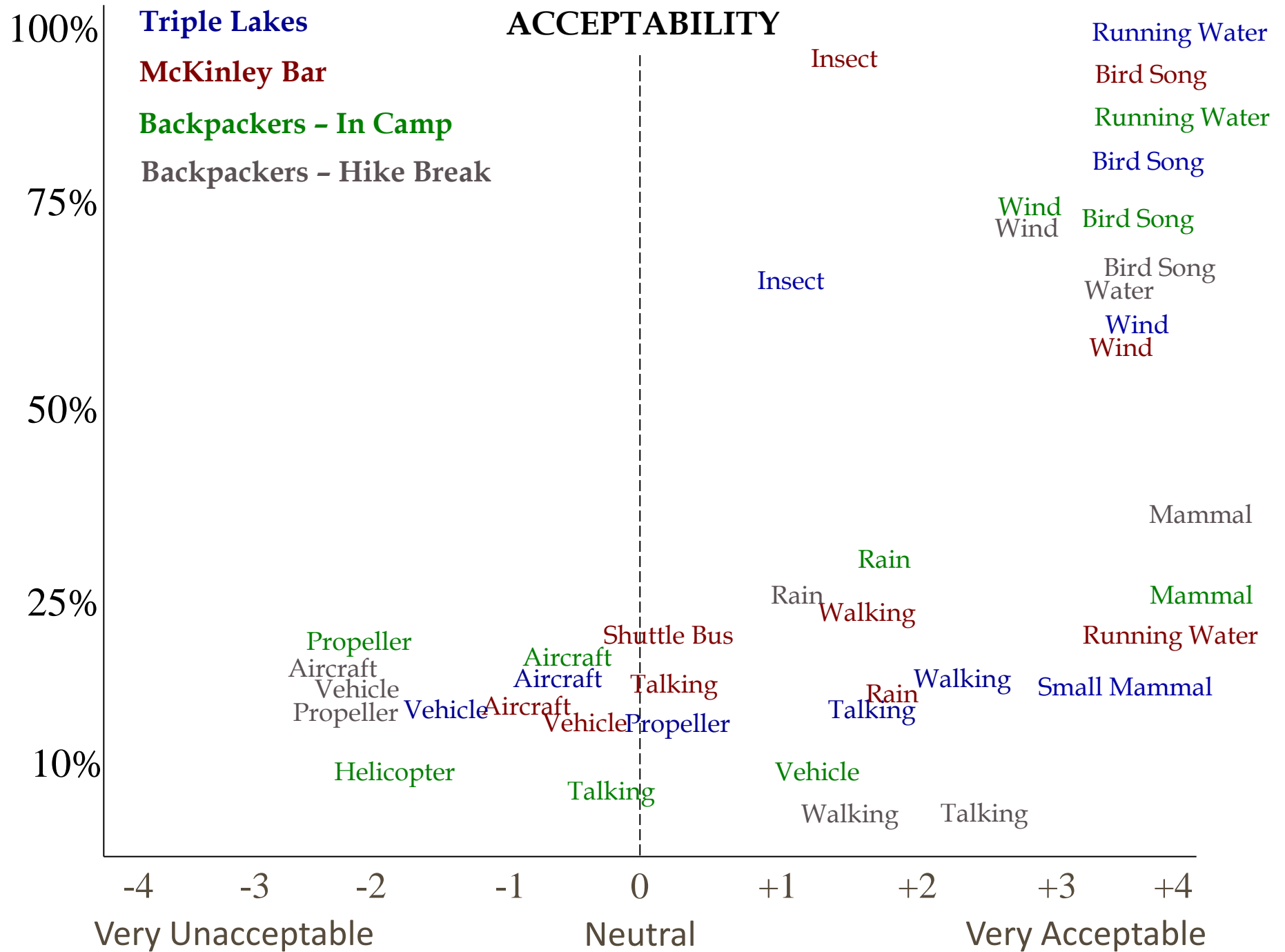


# Study Questions:

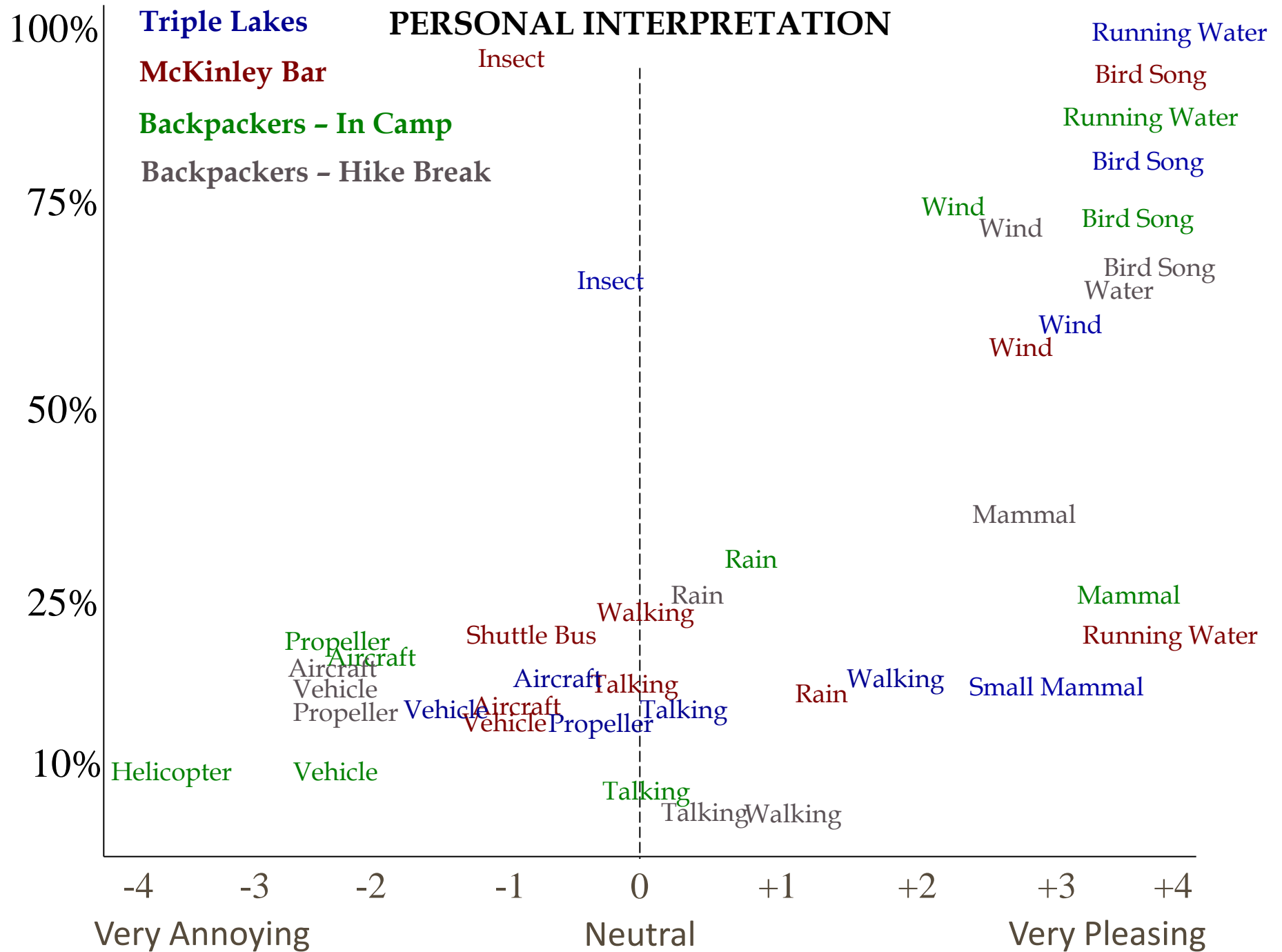
## What sounds were heard?

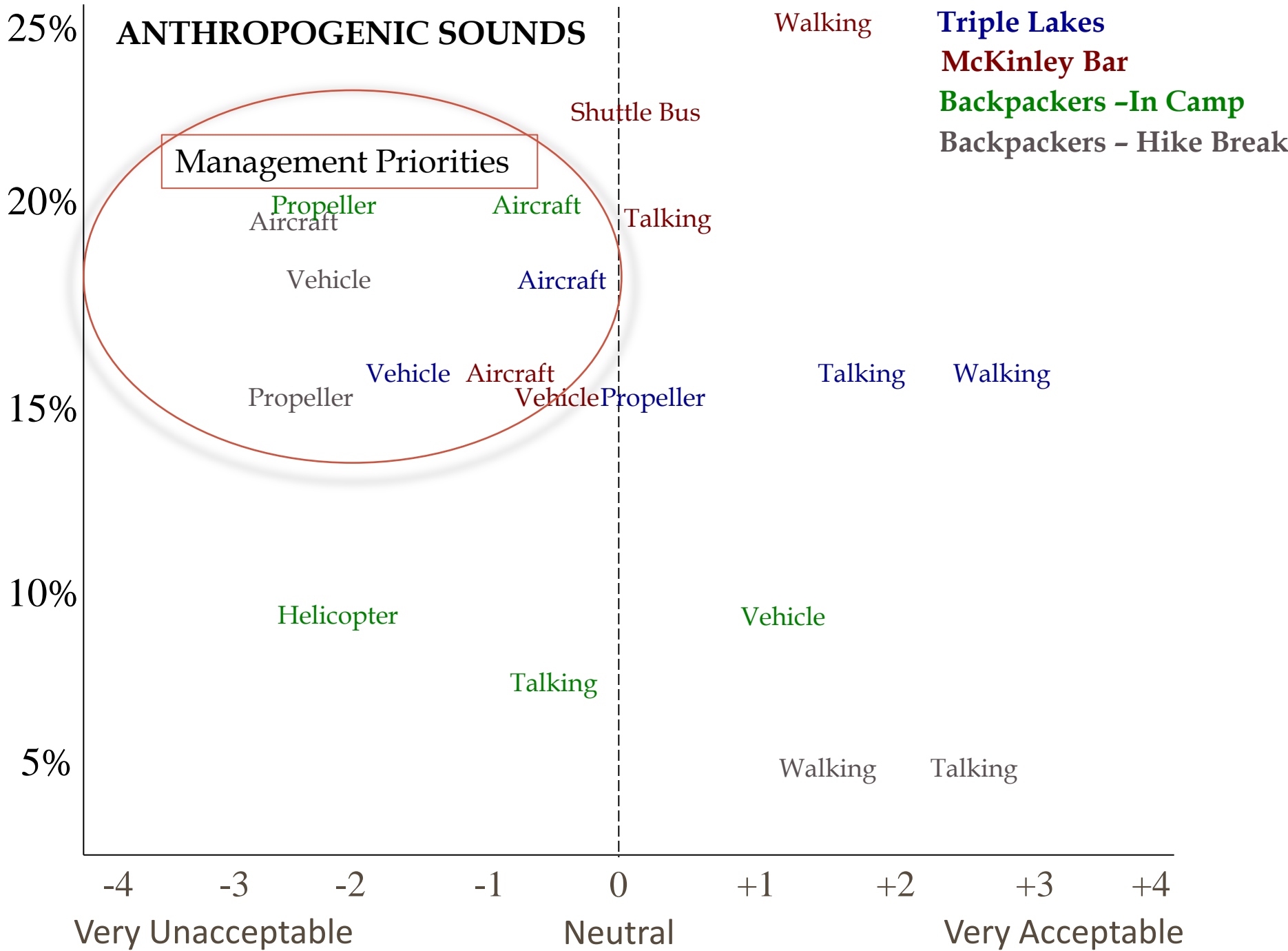
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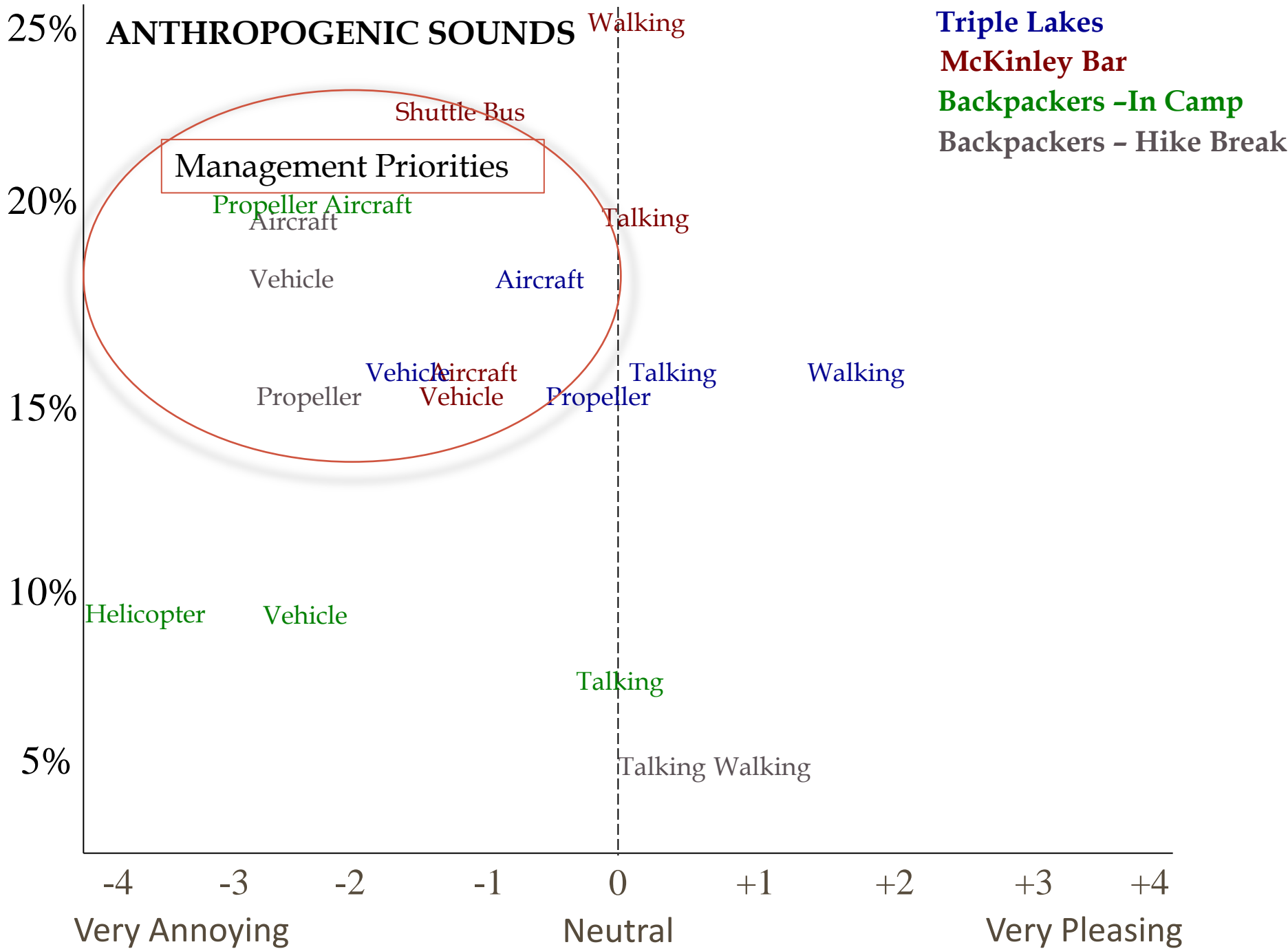






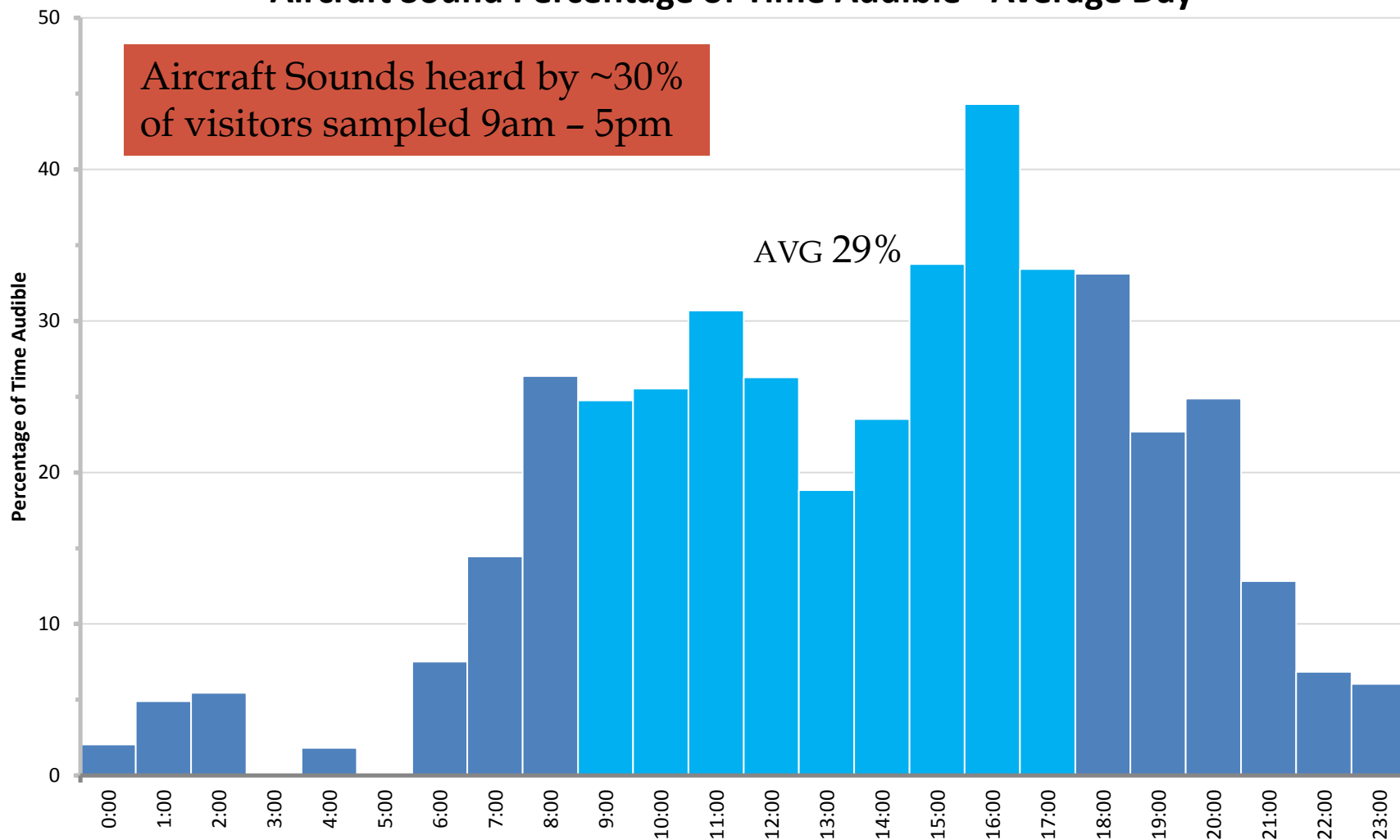






# 2011 North Triple Lakes Trail

## Aircraft Sound Percentage of Time Audible - Average Day

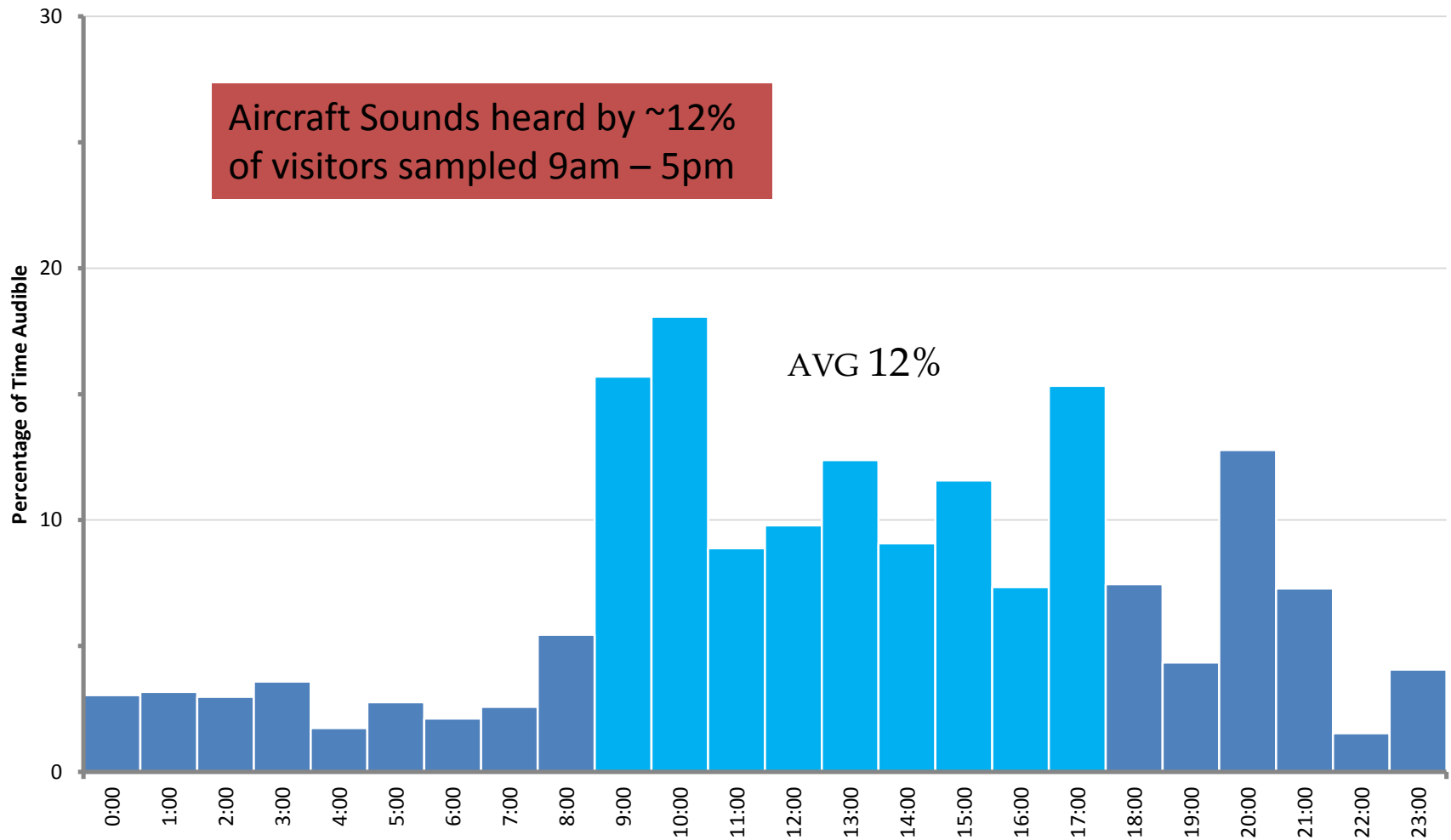


6/20 - 6/27



# 2011 McKinley Bar Trail

## Aircraft Sound Percentage of Time Audible - Average Day



6/02 - 7/04

# Phase 2 – Summer 2012

- Evaluate acceptability of sound sources to help inform the backcountry management plan standards
- Computer survey:
  - Motivation of visitors
  - “Library” of Propeller Aircraft Sounds
  - Range of dBA & duration levels
- 4 Locations
- Qualitative Interviews Talkeetna Ranger Station

